

Figure 1

Clone C35

A. DNA Coding Sequence

gcc gcg ATG AGC GGG GAG CCG GGG CAG ACG TCC GTA
GCG CCC CCT CCC GAG GAG GTC GAG CCG GGC AGT
GGG GTC CGC ATC GTG GTG GAG TAC TGT GAA CCC
TGC GGC TTC GAG GCG ACC TAC CTG GAG CTG GCC
AGT GCT GTG AAG GAG CAG TAT CCG GGC ATC GAG
ATC GAG TCG CGC CTC GGG GGC ACA GGT GCC TTT
GAG ATA GAG ATA AAT GGA CAG CTG GTG TTC TCC
AAG CTG GAG AAT GGG GGC TTT CCC TAT GAG AAA
GAT CTC ATT GAG GCC ATC CGA AGA GCC AGT AAT
GGA GAA ACC CTA GAA AAG ATC ACC AAC AGC CGT
CCT CCC TGC GTC ATC CTG TGA

B. Protein Sequence

MSGEPGQTSVAPPPEEVEPGSGVRIVVEYCEPCGFEATYLEL
ASAVKEQYPGIEIESRLGGTGAFEIEINGQLVFSKLENGGFPY
EKDLIEAIRRASNGETLEKITNSRPPCVIL*

Figure 2. C35 is Expressed at High Levels in Breast Tumors but Not Normal Tissues

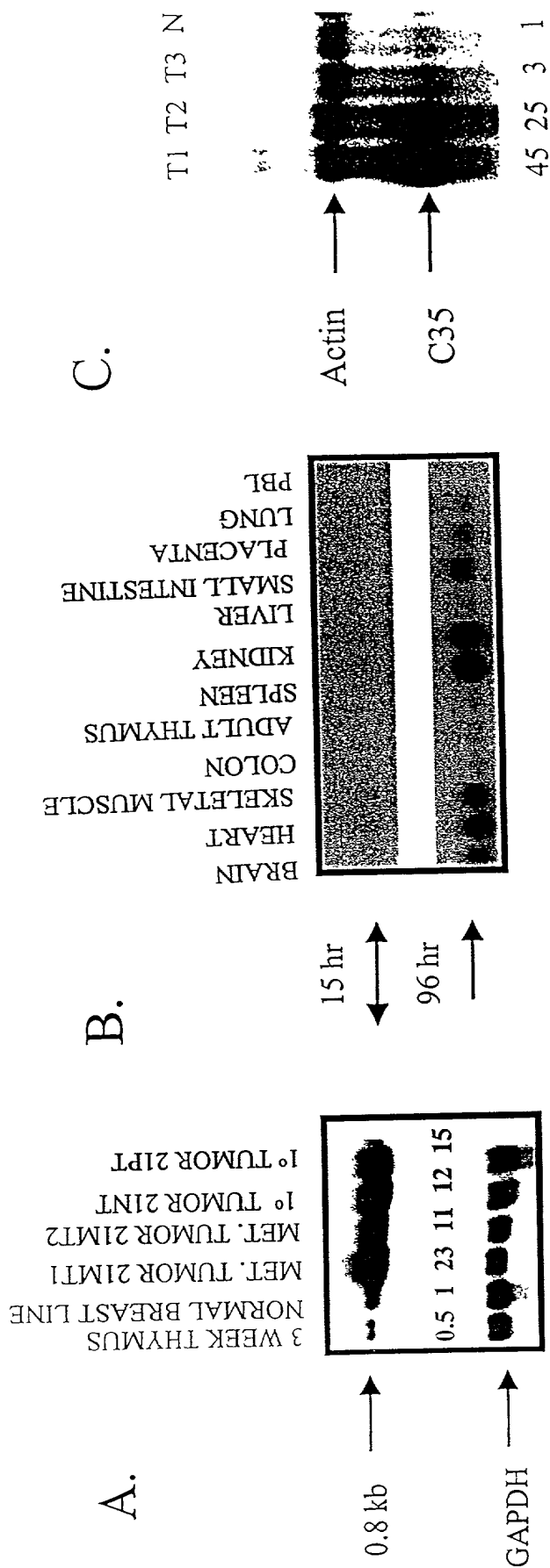


Figure 3

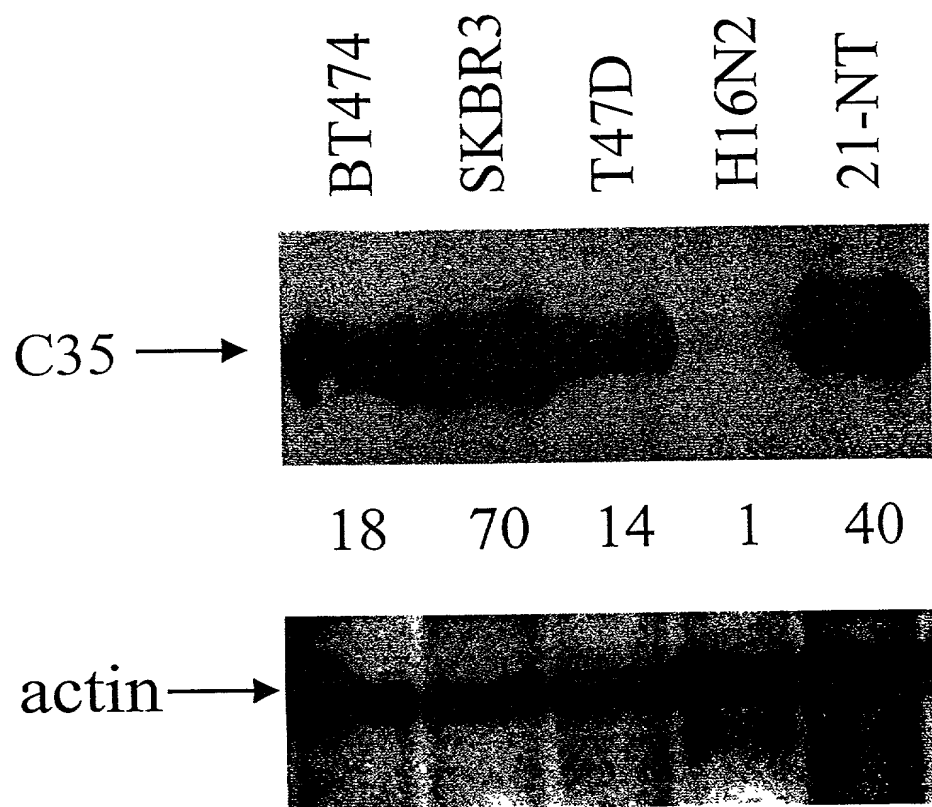
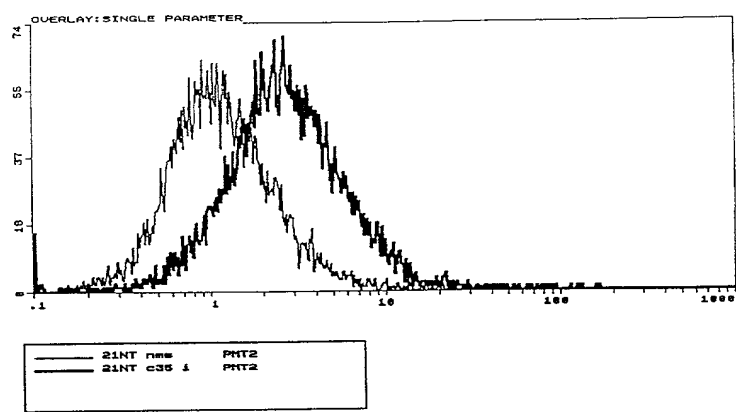
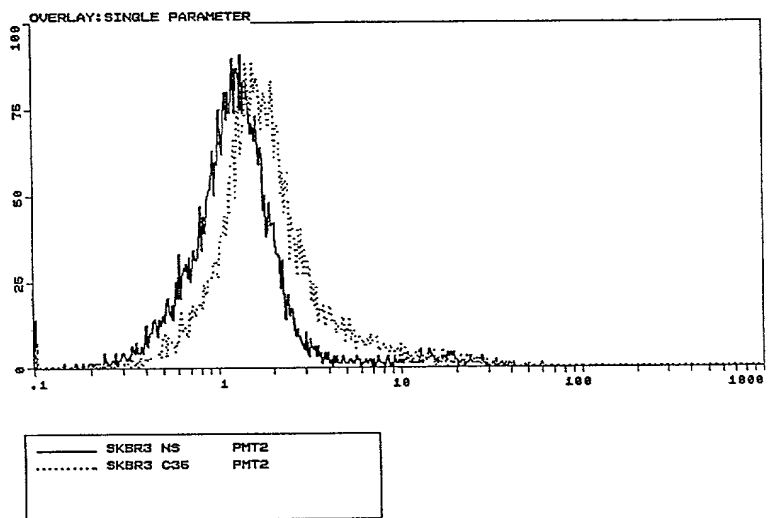


Figure 4

A.



B.



C.

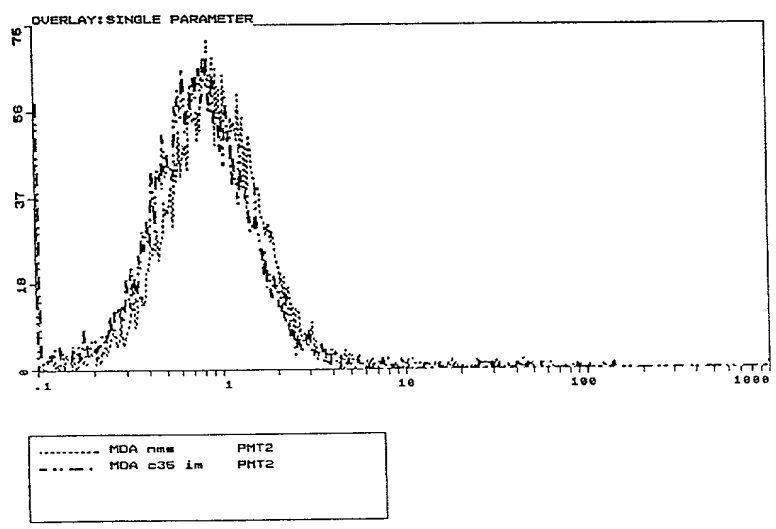


Figure 5A

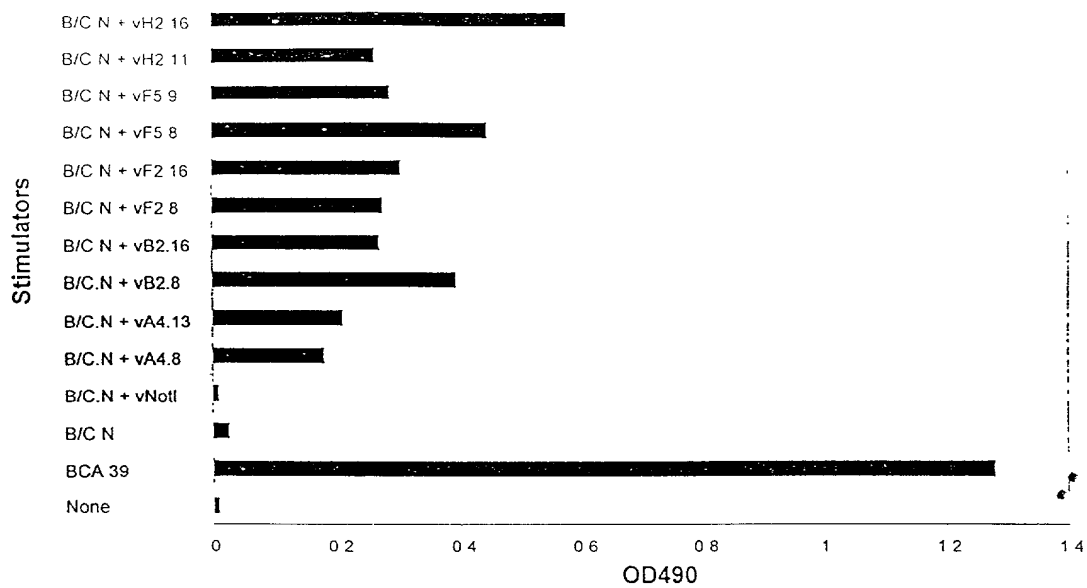


Figure 5B

<u>Target</u>	Percent Specific Lysis	
	Effector : Target	
	<u>10:1</u>	<u>2:1</u>
BCA 34	68.4	54.8
BCA 39	36.6	23.4
B/C.N	0.2	0.3
B/C.N + vF5.8	47.5	34.6
B/C.N + vH2.16	67.8	56.2
B/C.N + vaccinia vector	0	0.2

:

Parameter	Value	Unit
α	0.001	1/s
β	0.001	1/s
γ	0.001	1/s
δ	0.001	1/s
ϵ	0.001	1/s
ζ	0.001	1/s
η	0.001	1/s
θ	0.001	1/s
ι	0.001	1/s
κ	0.001	1/s
λ	0.001	1/s
μ	0.001	1/s
ν	0.001	1/s
ξ	0.001	1/s
\omicron	0.001	1/s
π	0.001	1/s
ρ	0.001	1/s
σ	0.001	1/s
τ	0.001	1/s
υ	0.001	1/s
ϕ	0.001	1/s
χ	0.001	1/s
ψ	0.001	1/s
ω	0.001	1/s
Ω	0.001	1/s
Θ	0.001	1/s
Φ	0.001	1/s
Ψ	0.001	1/s
Ξ	0.001	1/s
\Omicron	0.001	1/s
Π	0.001	1/s
\Rho	0.001	1/s
Σ	0.001	1/s
Υ	0.001	1/s
Φ	0.001	1/s
Ψ	0.001	1/s
Ξ	0.001	1/s
\Omicron	0.001	1/s
Π	0.001	1/s
\Rho	0.001	1/s
Σ	0.001	1/s
Υ	0.001	1/s
Φ	0.001	1/s
Ψ	0.001	1/s
Ξ	0.001	1/s
\Omicron	0.001	1/s
Π	0.001	1/s
\Rho	0.001	1/s
Σ	0.001	1/s
Υ	0.001	1/s
Φ	0.001	1/s
Ψ	0.001	1/s
Ξ	0.001	1/s
\Omicron	0.001	1/s
Π	0.001	1/s
\Rho	0.001	1/s
Σ	0.001	1/s
Υ	0.001	1/s
Φ	0.001	1/s
Ψ	0.001	1/s
Ξ	0.001	1/s
\Omicron	0.001	1/s
Π	0.001	1/s
\Rho	0.001	1/s
Σ	0.001	1/s
Υ	0.001	1/s
Φ	0.001	1/s
Ψ	0.001	1/s
Ξ	0.001	1/s
\Omicron	0.001	1/s
Π	0.001	1/s
\Rho	0.001	1/s
Σ	0.001	1/s
Υ	0.001	1/s
Φ	0.001	1/s
Ψ	0.001	1/s
Ξ	0.001	1/s
\Omicron	0.001	1/s
Π	0.001	1/s
\Rho	0.001	1/s
Σ	0.001	1/s
Υ	0.001	1/s
Φ	0.001	1/s
Ψ	0.001	1/s
Ξ	0.001	1/s
\Omicron	0.001	1/s
Π	0.001	1/s
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Σ	0.001	1/s
Υ	0.001	1/s
Φ	0.001	1/s
Ψ	0.001	1/s
Ξ	0.001	1/s
\Omicron	0.001	1/s
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Υ	0.001	1/s
Φ	0.001	1/s
Ψ	0.001	1/s
Ξ	0.001	1/s
\Omicron	0.001	1/s
Π	0.001	1/s
\Rho	0.001	1/s
Σ	0.001	1/s
Υ	0.001	1/s
Φ	0.001	1/s
Ψ	0.001	1/s
Ξ		

A L3

Amino Acid												
Position	45	46	47	48	49	50	51	52	53	54	55	56
Sequence	A	F	L	G	Y	K	A	G	M	T	H	I
Nucleotide	GCC	TTT	CTG	GGT	TAC	AAG	GCT	GGC	ATG	ACC	CAC	ATC

B. H2.16

Amino Acid													
Position	45	46	47	48	49	50	51	52	53	54	55	56	
Sequence	A	F	L	G	Y	K	A	G	M	I	H	I	
Nucleotide	---	---	---	---	---	---	---	---	---	-T-	---	---	

Figure 7A

Percent Specific Lysis

Effector: Target

<u>Target</u>	<u>10:1</u>	<u>2:1</u>
BCA 34	62.4	32.1
BCA 39	49.7	23.6
B/C.N	3.3	0.2
B/C.N + L3 peptide 48-56(I54)	46.0	16.1
B/C.N + L3 peptide 48-56(T54)	2.0	0
B/C.N + L3 peptide 45-54(I54)	0	0

Figure 7B

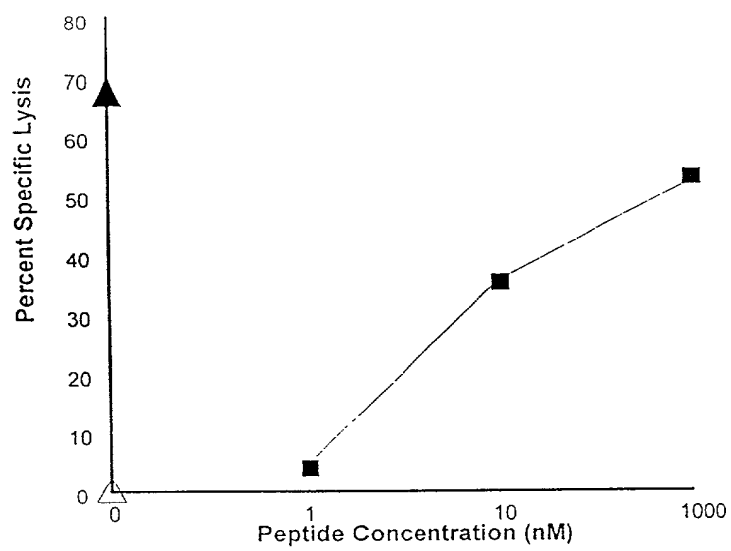
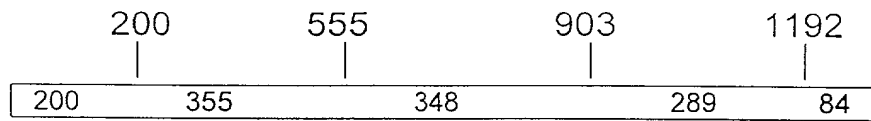


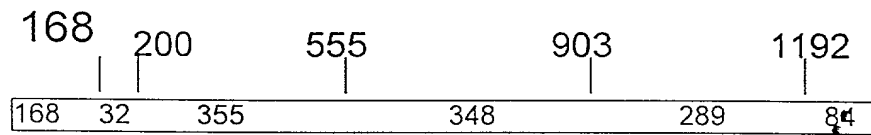
Figure 8A

Published L3 (1276 bp)



168-171 = GACC

H2.16 (1276 bp)



168-171 = GATC

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Figure 8B

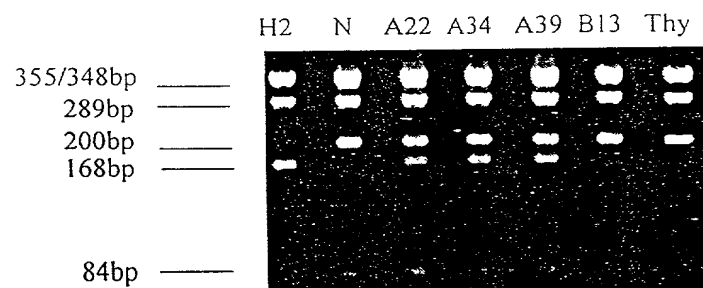


Figure 8C

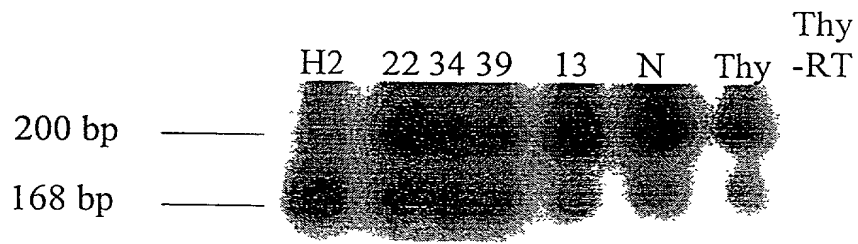


Figure 9A

Target	Percent Specific Lysis Immunogen			
	vH2.16		v7.5/tk	
	<u>40:1</u>	<u>10:1</u>	<u>40:1</u>	<u>10:1</u>
BCA 34	33.6	12.9	5.7	4.0
BCA 39	22.1	9.0	5.3	3.1
B/C.N + L3 48-56 (I54)	48.2	20.2	3.9	1.5
B/C.N + L3 48-56 (T54)	6.4	1.4	1.8	2.9
B/C.N	7.1	5.7	6.1	2.8
YAC	1.2	2.5	0	1.8

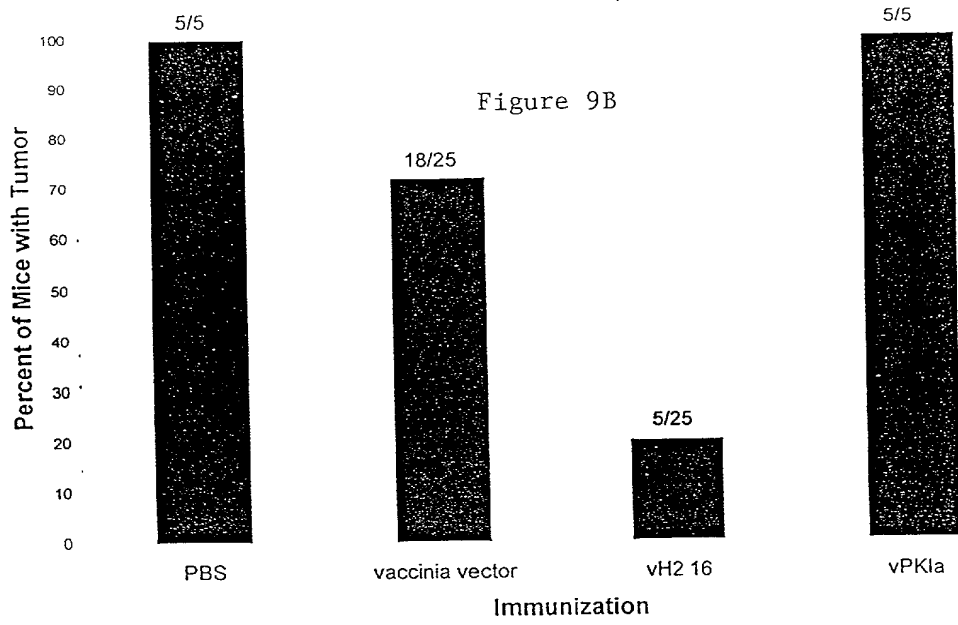
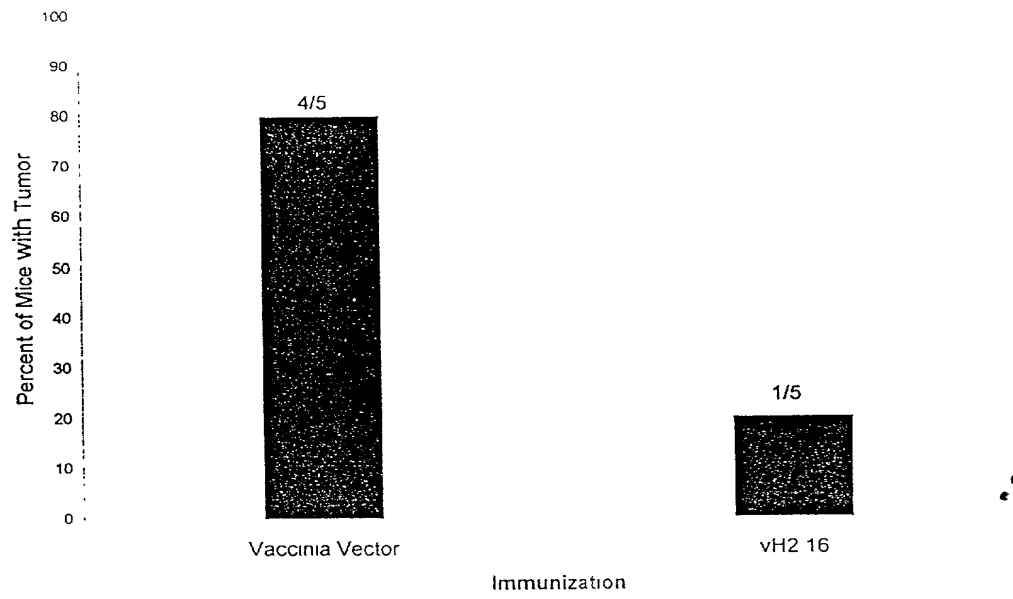


Figure 9C



A.

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gccccgagcggagccggccgcg ATG AGC GGG GAG CCG GGG CAG ACG TCC
                        M  S  G  E  P  G  Q  T  S
GTA GCG CCC CCT CCC GAG GAG GTC GAG CCG GGC AGT GGG GTC CGC
V  A  P  P  P  E  E  V  E  P  G  S  G  V  R
ATC GTG GTG GAG TAC TGT GAA CCC TGC GGC TTC GAG GCG ACC TAC
I  V  V  E  Y  C  E  P  C  G  F  E  A  T  Y
CTG GAG CTG GCC AGT GCT GTG AAG GAG CAG TAT CCG GGC ATC GAG
L  E  L  A  S  A  V  K  E  Q  Y  P  G  I  E
ATC GAG TCG CGC CTC GGG GGC ACA GGT GCC TTT GAG ATA GAG ATA
I  E  S  R  L  G  G  T  G  A  F  E  I  E  I
AAT GGA CAG CTG GTG TTC TCC AAG CTG GAG AAT GGG GGC TTT CCC
N  G  Q  L  V  F  S  K  L  E  N  G  G  F  P
TAT GAG AAA GAT CTC ATT GAG GCC ATC CGA AGA GCC AGT AAT GGA
Y  E  K  D  L  I  E  A  I  R  R  A  S  N  G
GAA ACC CTA GAA AAG ATC ACC AAC AGC CGT CCT CCC TGC GTC ATC
E  T  L  E  K  I  T  N  S  R  P  P  C  V  I
CTG TGA ctgcacaggactctgggttcctgctctgttctgggggtccaaaccttggctc
L  *
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```

B.

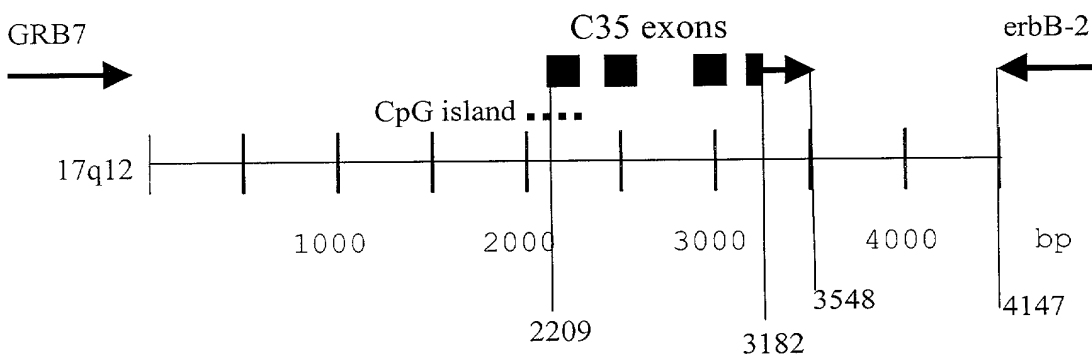
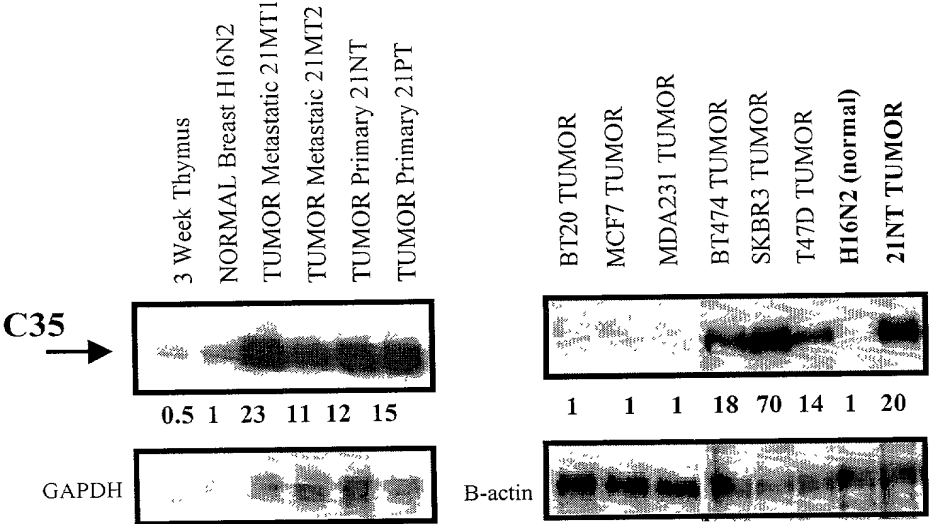


Figure 10

A. Breast epithelial cell lines



B. Primary breast tissue/tumors

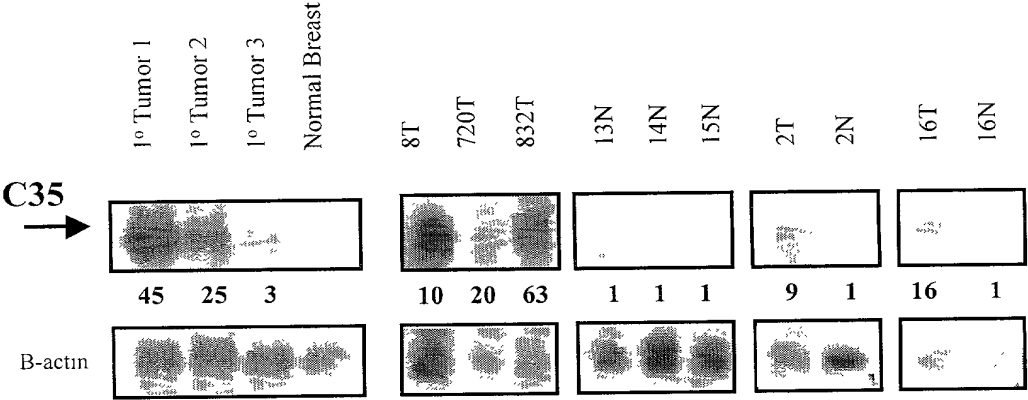


Figure 11

Primary bladder tumors

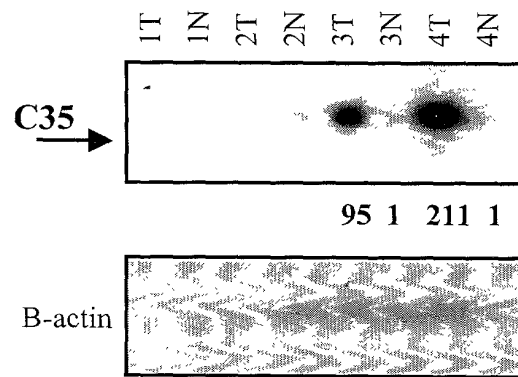
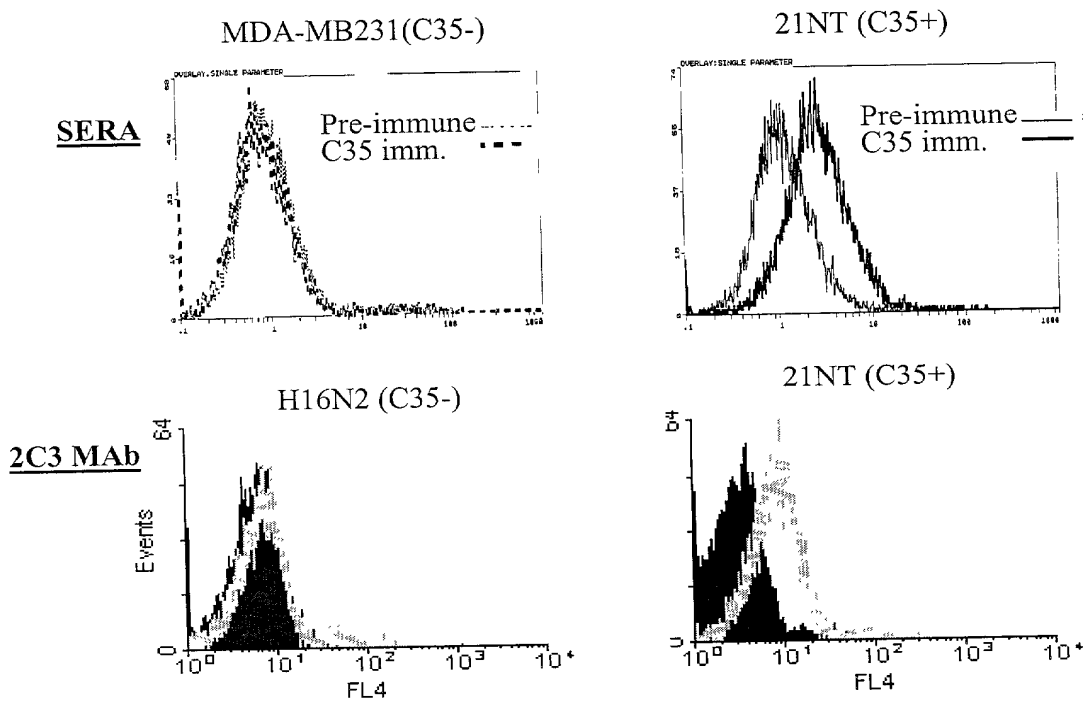


Figure 12

A. BREAST



B. BLADDER

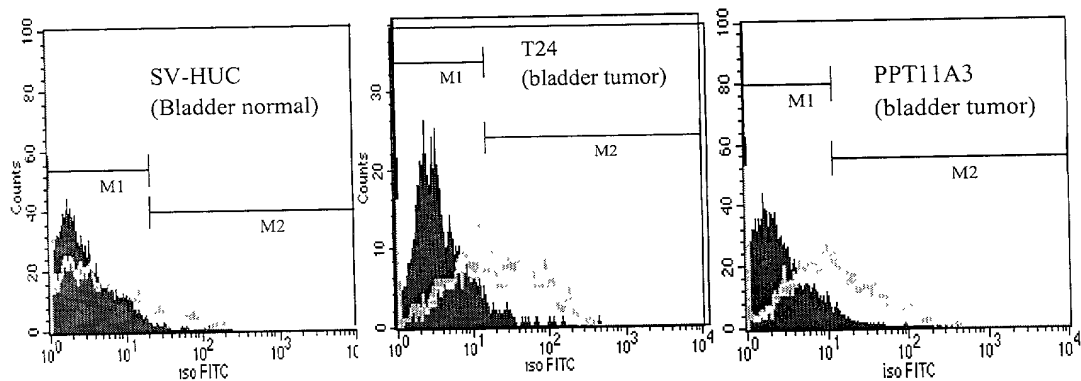
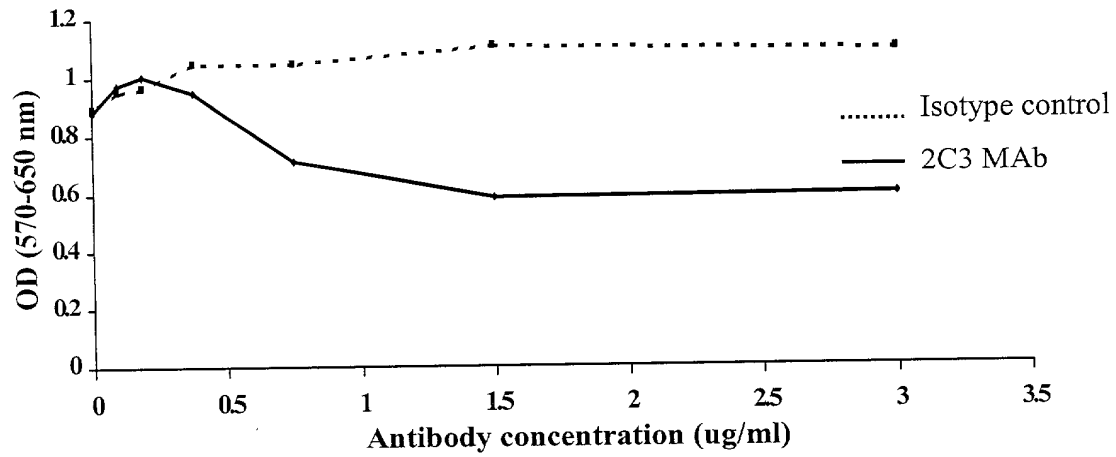


Figure 13

21NT Breast Tumor



H16N2 Normal Breast

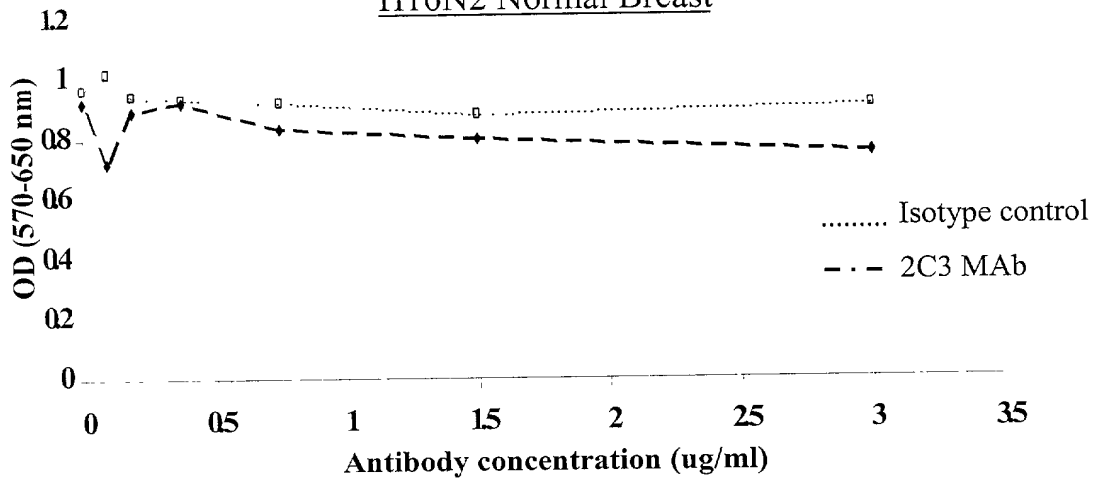
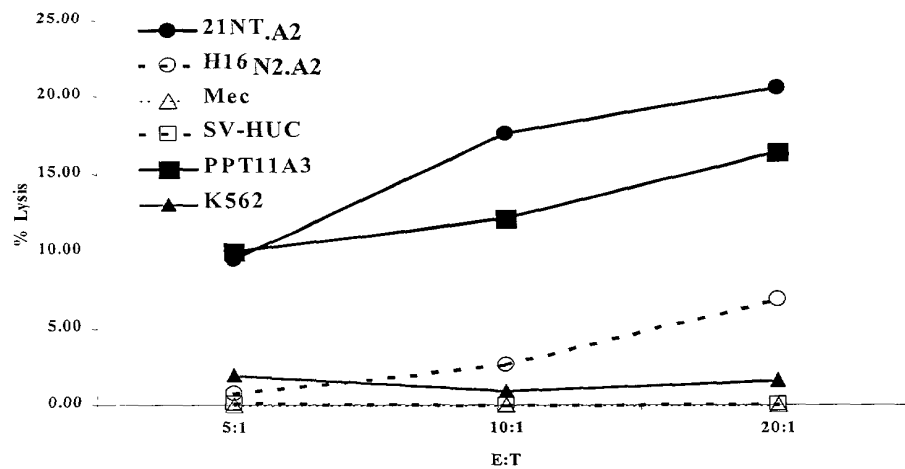


Figure 14

A. Lytic activity of C35-specific T cell line 4



B. Lytic activity of C35-specific T cell clone 10G3

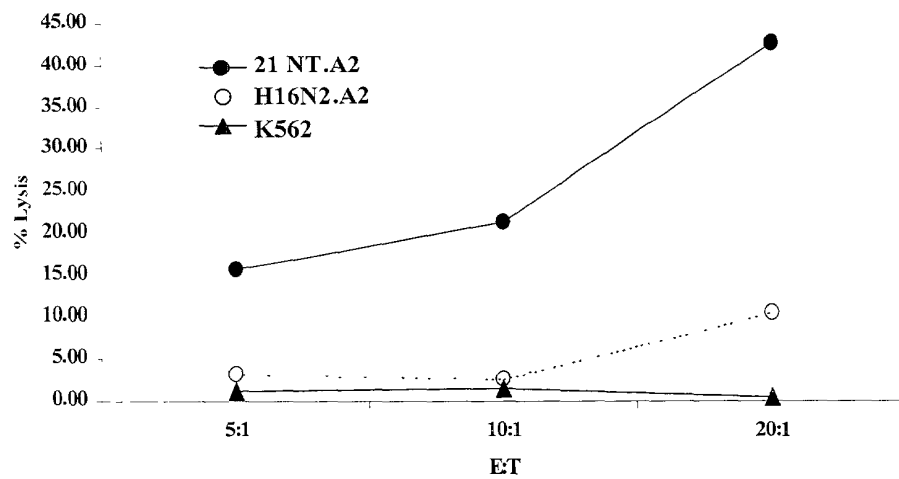
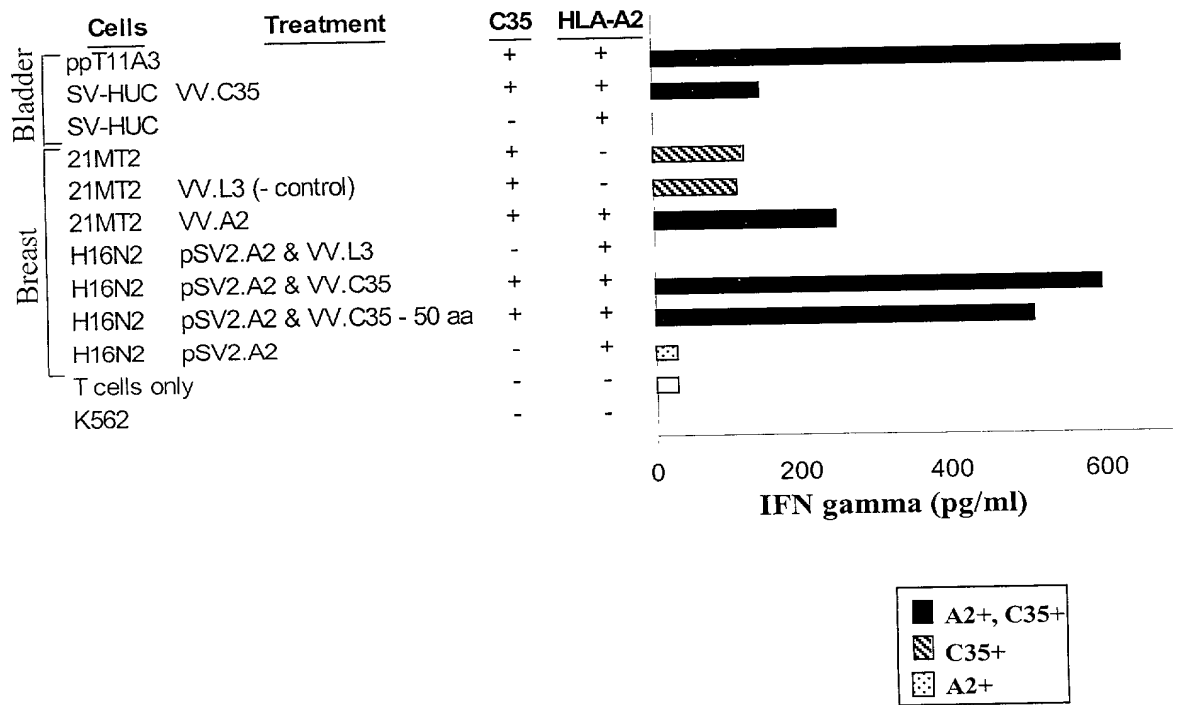


Figure 15

A.



B.

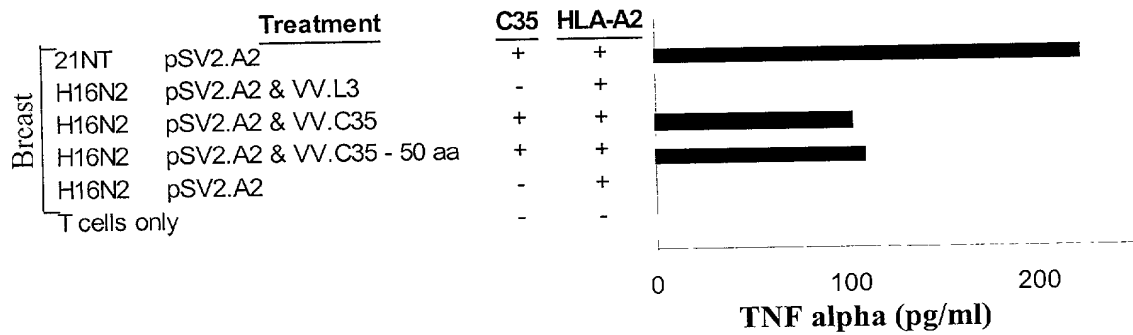


Figure 16

Tolerance to Alloantigens Induced in presence of Antigens and Anti-CD40 Ligand Antibody

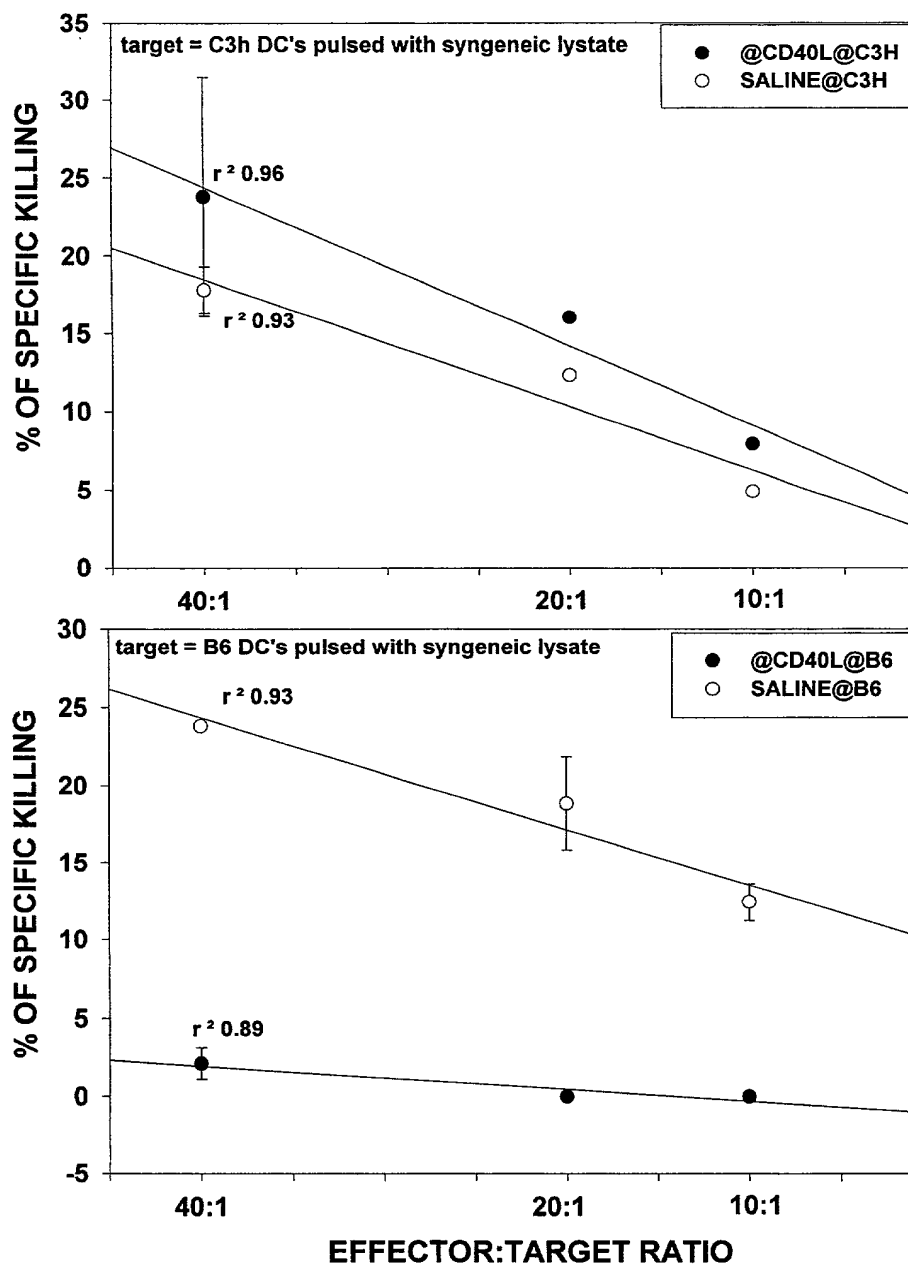


Figure 17